

Amend

to a battery effect (cell reaction) between the conductive film and the metallic film is decreased to prevent over-hanging of the conductive film and under-cut of the metallic film. --

See the attached Appendix for the changes made to effect the above paragraph.

IN THE CLAIMS:

Please amend claims 4, 12, 14 and 19 as follows:

sub E₁

4. (Amended) The method of claim 1, wherein the step of forming the mask

includes steps of:

X2

forming a photo-resist on the conductive film and in the first opening to serve as the

mask; and

removing a part of the photo-resist to form the second opening.

sub E₁

12. (Amended) A method of etching a metallic film, comprising the steps of:

forming a metallic film on a thin film resistor;

forming a conductive film on the metallic film to have an opening exposing the

metallic film therefrom and a thickness equal to or less than 300 nm;

X3

patterning the conductive film so that a ratio of an upper surface area of the conductive film relative to an upper surface area of the thin film resistor is equal to or more than 0.02; and

etching the metallic film through opening of the conductive film.

14. (Amended) The method of claim 12, wherein:

the step of patterning the conductive film includes a step of disposing a resist having a specific shape on the conductive film, and a step of etching the conductive film through the resist; and

the metallic film is etched through the conductive film holding the resist thereon.

19. (Amended) A method of etching a metallic film, comprising the steps of:

forming a thin film resistor on a semiconductor substrate through an insulation layer interposed therebetween;

forming a metallic film on the thin film resistor;

oxidizing a surface portion of the metallic film to form a surface oxide layer on the metallic film;

forming a conductive film on the surface oxide layer;

patterning the conductive film to form an opening in the conductive film, the opening exposing the surface oxide layer therefrom; and

wet-etching the surface oxide layer and the metallic film,

wherein the conductive film is made of a metallic material different from that of the metallic film.

See the attached Appendix for the changes made to effect the above claims.

Please add new claims 26-32 as follows:

-- 26. (New) The method of claim 5, wherein the metallic film is a single layer.

27. (New) The method of claim 5, wherein the metallic film is directly disposed on the thin film resistor.

E_{conv}
28. (New) A method of etching a metallic film, comprising:
forming a metallic single film on a thin film resistor;
forming a mask on the metallic single film with an opening; and
etching the metallic single film through the opening so that the thin film resistor is exposed from the opening, wherein:
the metallic single film is etched at two steps of dry-etching and wet-etching.

A_{conv}
29. (New) The method according to claim 19, wherein the surface oxide layer and the metallic film are wet-etched through the opening of the conductive film serving as an etching mask.

E_{conv}
30. (New) The method according to claim 19, wherein the wet-etching is performed in a state where both the conductive film and the metallic film contact an etching solution.

31. (New) A method of etching a metallic film, comprising:
forming a metallic film on a thin film resistor;
forming an insulation film on the metallic film;
forming a conductive film on the insulating film, the conductive film having an ionization tendency different from that of the metallic film;
forming an opening in the conductive film to expose at least one of the insulation film and the metallic film through the opening; and

wet-etching the metallic film in a state where both the metallic film and the
conductive film contact an etching solution.

32. (New) The method according to claim 31, wherein the metallic film is
wet-etched through the opening, a side wall of which is defined by the conductive film and is
exposed to the etching solution. --
